EDITORIALS

Women's Health

An Evolving Mosaic

Women's health was described as "a patchwork quilt with gaps" in 1992.[1] This has been an especially fitting metaphor as quilts are stitched with discarded remnants using thread that may unravel over time. The image of a patchwork quilt also captured the separation between specialties (which often function in isolation) and the experience of individuals who attempt to work across disciplines. At best, those who have worked to bridge disciplines have created a strong cross-stitch between patches, and at worst, they have found themselves extending over an abyss. The content gaps described by Drs. Clancy and Massion in 1992 included several topics that were then not addressed effectively by most primary care physicians: sexuality, eating disorders, depression, domestic violence, and life cycle transitions.[1]

Since 1992, there have been increasing amounts of women's health research, teaching, and new clinical initiatives at the interface between disciplines, extending throughout the life span. There has been attention, by at least some clinicians, teachers, and researchers, to how sex, age, ethnicity and race, and socioeconomic class potentially impact on clinical diagnosis and management. Women's health incorporates knowledge and skills from multiple disciplines with attention to both patient and provider characteristics. Table 1 provides one such definition of women's health.[2]

Considering patient and provider characteristics as essential elements can lead to a richer and more complex understanding of what is studied as well as potentially improving clinical care. The importance of patient characteristics such as sex and race can be seen in the tobacco cessation literature.[3,4] Women have been documented to have lower success rates for initial and long-term cessation than men,[3] yet women are twice as likely to attempt tobacco cessation in response to social pressure. There are also differences in the source of social pressure responded to (women report pressure from their children, while men report pressure from coworkers).[3] Women describe fear of any weight gain as a substantial barrier to considering tobacco cessation. Therefore, tobacco cessation programs for women should encourage family support and focus effectively on weight control. Black, compared to white and hispanic, smokers have substantially higher cotinine levels after similar levels of nicotine consumption.[4] Consequently, black patients may require nicotine substitution with lower levels of tobacco use. Provider characteristics also impact on medical practice, as illustrated in the article in this issue on chaperone use during genitalia examination[5] and postmenopausal hormonal replacement therapy use in a managed care organization.[6]

Unfortunately, many researchers have not reported or considered sex and gender in study design even when including both women and men subjects.[7] Other researchers have used prospective subgroup analysis for key variables when there are potential reasons that patient characteristics may have clinical importance.[3,8] For example, when the interaction between sex and age in predicting 30-day mortality after myocardial infarction was explored, a higher mortality among younger women was noted, raising new questions about clinical care and cardiac risk factors in younger women.[8]

As research and clinical care have continued to progress, perhaps women's health should now be described as an evolving mosaic. Similar to creating quilts, a successful mosaic requires planning, innovation, and often collaboration. As with a quilt, the component parts can be eclectic. However, unlike a quilt where individual sections are separate, a mosaic is composed of many small parts that intermingle to create sections of a larger whole. Diversity can be a more prominent characteristic when the building blocks are small and purposely integrated. The various tiles in a mosaic require bonding together with some form of cement, creating a bond between multiple component parts. While the tiles may include ethnicity and race, age, socioeconomic status, as well as sex and gender, the epoxy holding the mosaic together is successful interdisciplinary collaboration. Those interested in women's health have expanded knowledge and skills beyond the traditional borders between disciplines.[9,10] One illustration is the collaboration of internists and obstetricians in the medical care of the pregnant and fertile woman. Internists interested in the medical care of the pregnant patient find their ability to diagnose medical illness valuable to the obstetrician (such as diagnosing asthma presenting as cough, or differentiating between tension and migraine headaches). The internist who learns about the management of common medical problems in pregnancy may provide more comprehensive care to fertile women (such as recommending folate or readjusting the care of medical problems prior to pregnancy in order to minimize the risk during pregnancy for mother and fe-

Table 1. National Academy on Women's Health Medical Education's Definition of Women's Health

Women's health is devoted to facilitating the
• preservation of wellness and
• prevention of illness in women
and includes
• screening, diagnosis and management of conditions that
are unique in women
are more common in women
are more serious in women
have manifestations, risk factors or interventions that are different in women
Women's health also
• recognizes the importance of the study of gender differences
• recognizes multidisciplinary team approaches
• includes the diversity of women's health needs over the life cycle, and how these needs reflect differences in race, class, ethnicity, culture, sexual preference, and levels of education and access to medical care, and includes the empowerment of women, as for all patients, to be informed participants in their own health care.

tus).[10] Cross-disciplinary collaboration with attention to both concepts and details fosters reconceptualization of common clinical problems—for example rethinking the care of fertile diabetic patients considering pregnancy. As each specialty increases its range, the potential to provide more comprehensive care to individual patients and communities increases. Perhaps in the future the fitting metaphor for women's health will be a beautifully interwoven tapestry rather than an evolving mosaic. Interdisciplinary collaboration is critical to this progress.

The diversity of articles included within this issue of the *Journal* reflects portions of the women's health mosaic.[5,6,11–13] The term *sex* has been used to describe anatomy, physiology, and those areas that might be genetic, while *gender* has been used to describe social factors. In addition to sex or gender, each article explores patient characteristics, social issues, or both, expanding knowledge about, and conceptualization of, common medical conditions and situations. The topics and authors cross multiple disciplines.

Consideration of eating disorders demonstrates the potential impact that women's health can have on internal medicine practice. A valuable literature review on eating disorders concentrates on anorexia nervosa and bulimia nervosa,[11] emphasizing the prevalence of anorexia among African-American, Asian, Hispanic and white women. Eating disorders in diabetic patients are an example of where the expansion of the internist's ability to diagnose and share management of psychiatric problems is critical.[11] As the evidence for effective treatment mounts, it becomes increasingly important for physicians from multiple disciplines to consider these diagnoses. Historically, women with eating disorders received most of their care from psychiatrists and others in mental health, and they were a small patch on the women's health quilt. However, in the mosaic of patients that internists see, many have eating disorders. The subset of patients who also have diabetes or obesity may especially benefit from earlier identification.

Critical literature analysis can be hampered by difficulties in searching the literature. The search term *eating disorders* only identified a subset of the articles on binge eating (binge eating, binge eating syndrome, and binge eating disorder) that were identified when *binge eating* was searched as a text word. Yet, binge eating disorders are more common than bulimia and anorexia nervosa.[14] In one case control study, women with binge eating disorder had similar but less severe psychologic risk factors than bulimic women matched by age and social class.[15] While there is limited literature to suggest that treatment with behavioral programs[16] and diet counseling plus imipramine[17] may be beneficial in binge eating disorder, further studies may change clinical practice. Finally, the natural history of eating disorders has begun to be explored.[14,18,19] While symptoms may resolve with time, a smaller subset of patients evolve from one type of eating disorder to another.

The review of eating disorders demonstrates how cross-disciplinary collaboration has further expanded the identified spectrum of disease and the potential pool of patients where identification and treatment might be of benefit. A number of patient characteristics, not just sex and gender, were considered. Less severe symptoms are common in eating disorders, with anorexia and bulimia being only the tip of the iceberg. Treatment studies reveal important interactions between psychologic counseling and medication. The recent literature on eating disorders is illustrative of the metaphor of an evolving mosaic rather than a patchwork quilt.

Women's health in its broadest definition provides a robust model for how internists might expand their vision. Some seasoned clinicians interested in women's health have been acutely aware of their limitations, and they have chosen to expand their scope and write about what they have learned.[2,9,10,11,20] Similarly, experts revising national hypertension treatment guidelines have considered sex, age, and race.[21] There have also been efforts to expand the scope of residency education[22] and medical student education.[23] Presenters at meetings of the Society of General Internal Medicine have a long tradition of exploring patient characteristics and expanding beyond traditional internist boundaries. If the women's health mosaic were applied to internal medicine, then internal medicine would evolve into a specialty that routinely considers individual patient characteristics and how they impact on the presentation and management of common medical disorders, and expands the boundaries between disciplines. The resulting exploration will fuel research, teaching, and practice, with a greater potential to improve the care we provide to individual patients and communities.—**PAMELA CHARNEY, MD,** *Jacobi Medical Center, Bronx, NY.*

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